*Sequence Alignments* (handwritten)

OM protein - protein search, using sw model

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GenCore version 5.1.3

Run on:        December 29, 2002, 13:52:52 ; Search time 32 seconds
                                    (without alignments)
                                    2057.056 Million cell updates/sec

Title:          us-10-050-726-2
Perfect score:  2539
Sequence:       1 MEEPQPPPRPASMALLGSOH...........PRPVTAVTKQPKSRAGDTSL 494

Scoring table:  BLOSUM62
                Gapop 10.0 , Gapext 0.5

Searched:       908470 seqs, 13325062D residues

Total number of hits satisfying chosen parameters:     908470

Minimum DB seq length:  0
Maximum DB seq length:  2000000000

Post-processing: Minimum Match 0%
                 Maximum Match 100%
                 Listing first 45 summaries

Database :      A_Geneseq_101DD2:*
        1:      /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*
        2:      /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*
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        4:      /SIDS2/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*
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pred. No. is the number of results predicted by chance to have a
score greater than or equal to the score of the result being printed,
and is derived by analysis of the total score distribution.

## SUMMARIES

| Result No. | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 1 | 2539 | 100.0 | 494 | 23 | AAB15640 | Human G-protein co |
| 2 | 2525 | 99.4 | 494 | 22 | AAG78782 | Human G-protein co |
| 3 | 2500.5 | 98.8 | 595 | 23 | AAU69520 | Human G protein co |
| 4 | 2471 | 97.3 | 482 | 23 | AAB14751 | Human G-protein co |
| 5 | 852 | 33.6 | 221 | 23 | AAU05519 | Human G-protein-co |
| 6 | 320.5 | 12.6 | 478 | 23 | AAB36476 | Novel secreted pro |
| 7 | 314 | 12.4 | 477 | 22 | AAA21082 | Dopamine D1 recept |
| 8 | 314 | 12.3 | 477 | 16 | AAR79381 | Dopamine receptor |
| 9 | 313 | 12.3 | 477 | 18 | AAW40802 | Human D5 dopamine |
| 10 | 313 | 12.3 | 477 | 18 | AAW40802 | Human D5 dopamine |

| | Score | % Query Match | Length | DB | ID | Description |
|---|---|---|---|---|---|---|
| 11 | 313 | 12.3 | 477 | 22 | AAB56350 | Non-endogenous hum |
| 12 | 303.5 | 12.0 | 489 | 23 | AAU95907 | Human SNORF36c rec |
| 13 | 303.5 | 12.0 | 349 | 23 | AAU95898 | Human galanin rece |
| 14 | 306.5 | 12.1 | 475 | 14 | AAR79443 | Galanin receptor, |
| 15 | 306.5 | 12.1 | 349 | 16 | AAR31046 | Rat D1B dopamine r |
| 16 | 303.5 | 12.0 | 349 | 17 | AAR95070 | Human galanin rece |
| 17 | 303.5 | 12.0 | 349 | 23 | AAU09897 | Human galanin rece |
| 18 | 302.5 | 11.9 | 349 | 23 | AAU09895 | Human galanin rece |
| 19 | 297.5 | 11.7 | 474 | 21 | AAB36479 | Non-endogenous hum |
| 20 | 289.5 | 11.4 | 560 | 22 | AAB95966 | Human galanin rece |
| 21 | 288.5 | 11.4 | 1626 | 22 | ABG28294 | Human galanin rece |
| 22 | 288 | 11.3 | 432 | 21 | AAY73373 | Non-endogenous hum |
| 23 | 288 | 11.3 | 432 | 21 | AAY93146 | Rat SNORF36 recept |
| 24 | 287 | 11.3 | 432 | 21 | AAX75313 | Rat alpha-1a adren |
| 25 | 287 | 11.3 | 572 | 16 | AARG92832 | Novel human diagno |
| 26 | 285 | 11.2 | 572 | 15 | AAR90039 | Novel rat G-protei |
| 27 | 285 | 11.2 | 387 | 18 | AAW24562 | Rat neuropeptide F |
| 28 | 285 | 11.2 | 387 | 19 | AAW61462 | Amino acid sequenc |
| 29 | 285 | 11.2 | 387 | 19 | AAW61386 | Sequence of human |
| 30 | 284 | 11.2 | 387 | 19 | AAW49003 | Human alpha-1a adr |
| 31 | 284 | 11.2 | 432 | 21 | AAU74548 | Human galanin rece |
| 32 | 284 | 11.2 | 385 | 19 | AAG67759 | Human galanin rece |
| 33 | 284 | 11.2 | 572 | 15 | AAX57589 | Human galanin rece |
| 34 | 284 | 11.2 | 359 | 23 | AAU10901 | Human histamine H2 |
| 35 | 284 | 11.2 | 359 | 22 | AAU10902 | Sequence of HGRA |
| 36 | 284 | 11.2 | 359 | 23 | AAX56886 | Human histamine H2 |
| 37 | 281 | 11.1 | 432 | 21 | AAR58681 | Human histamine H2 |
| 38 | 281 | 11.1 | 385 | 19 | AAW52252 | Rat B5 receptor po |
| 39 | 281 | 11.1 | 572 | 15 | AAR53071 | Human alpha-1A adr |
| 40 | 281 | 11.1 | 572 | 15 | AAY57889 | Human galanin rece |
| 41 | 281 | 11.1 | 572 | 15 | AAR52256 | Alpha 1a adrenergi |
| 42 | 281 | 11.1 | 572 | 15 | AAR80365 | Alpha 1a adrenergi |
| 43 | 281 | 11.1 | 572 | 15 | AAR88563 | Alpha-1A adrenergi |
| 44 | 281 | 11.1 | 359 | 23 | AAB59662 | Alpha-1A adrenergi |
| 45 | 281 | 11.1 | 359 | 22 | AAB59662 | Human alpha-1a adr |

## RESULT 1

ID      AAB15640
AAB15640 standard; protein; 494 AA.

AAB15640;

12-MAR-2002 (first entry).

Human G-protein coupled receptor-10 (GCRC-10) protein.

Human G-protein coupled receptor-10 (GCREC-10; GCREC-10; therapy; cancer; stroke;
cell proliferative disorder; neurological; epilepsy; Parkinson's disease;
Alzheimer's disease; inflammation; thyroiditis; haemolytic anaemia; AIDS;
Acquired Immune Deficiency Syndrome; dementia; nootropic; cholelithiasis;
multiple sclerosis; atherosclerosis; angina pectoris; gastroenteritis;
diabetic; ulcer; viral infection; immunosuppressive.

Homo sapiens.

| Key | Location/Qualifiers |
|---|---|
| Domain | 110..129 |
| | /label= Transmembrane_domain |

## ALIGNMENTS

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PR    14-JUL-2000;  2000US-218936P.
PR    19-JUL-2000;  2000US-219554P.
PR    21-JUL-2000;  2000US-220141P.

PA    (INCY-) INCITE GENOMICS INC.

PI    Lal P,  Baughn MR,  Hafalia ARA,  Nguyen DB,  Gandhi AR,  Kallick DA;
PI    Griffin JR,  Yue H,  Khan FA,  Patterson C,  Lu DAM,  Tribouley CM;
PI    Walia NK,  Grau R,  Yao MG,  Yang J,  Ramkumar J,  Au-Young J;
PI    Elliot VS,  Hernandez R,  Walsh MT,  Borowsky ML,  Thornton M,  He A;

DR    WPI; 2002-07562Y/10.
DR    N-PSDB; AAD24965.

XX
PN    Isolated human G-protein coupled receptor polypeptides and the use of
PT    these sequences in the diagnosis, treatment and prevention of diseases
PT    and in the assessment of exogenous compounds on the expression of the
PT    receptors -

XX
Claim 1; Page 123-124; 143pp; English.

XX
CC    The invention relates to isolated human G-protein coupled receptor
CC    (GCREC) polypeptides and their biologically active fragments. GCREC and
CC    protein is useful in treating a disease or condition associated with an
CC    increase or decrease in the expression of GCREC such as a
CC    disorders (cancer, leukaemia, melanoma), neurological disorders (stroke,
CC    useful in the diagnosis, treatment and prevention of cell proliferative
CC    epilepsy, Parkinson's disease, dementia, Alzheimer's disease); autoimmune
CC    inflammatory disorder (thyroiditis, haemolytic anaemia, AIDS; multiple
CC    sclerosis); cardiovascular disorder (atherosclerosis, angina pectoris);
CC    gastrointestinal disorder (ulcer, cholelithiasis, gastroenteritis) and
CC    metabolic disorders (diabetes, viral infections (herpes), and in
CC    the assessment of the effects of exogenous compounds on the expression
CC    of the nucleic acid and amino acid sequences. The present sequence is
CC    human GCREC-10 protein.

XX
SQ    Sequence  494 AA;

Query Match       100.0%;   Score 2539;   DB 23;   Length 494;
Best Local Similarity   100.0%;   Pred. No 3.2e-206;
Matches   494;   Conservative    0;   Mismatches    0;   Indels    0;   Gaps    0;

Qy      1  MEEPQPPRPPASHALLGSGHSGCAPESAAGPPGGTSSAATAAVLSFSSVATAALGNLSDASG   60
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Db      1  MEEPQPPRPPASHALLGSGHSGCAPESAAGPPGGTSSAATAAVLSFSSVATAALGNLSDASG   60

Qy     61  GGTAAAVPGGGLGGGSGAAARENGAAVRRPLGPEBARPLLSHGAAVAAQGLVLLIFLSSLG  120
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Db     61  GGTAAAVPGGGLGGGSGAAARENGAAVRRPLGPEBARPLLSHGAAVAAQGLVLLIFLSSLG  120

Qy    121  NCAVMGVIVKEHRQLRVTVNAFILSLSLSDLILNALLCLPNAFLDLFYPPGGSAPAAAGPW  180
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Db    121  NCAVMGVIVKEHRQLRVTVNAFILSLSLSDLILNALLCLPNAFLDLFYPPGGSAPAAAGPW  180

Qy    181  RGFCAASRFFSSCRG1VSTLSVALLISDRYCAIVRPPREKTGRRRALQLLAGAWIZALGF  240
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Db    181  RGFCAASRFFSSCRG1VSTLSVALLISDRYCAIVRPPREKTGRRRALQLLAGAWIZALGF  240

Qy    241  SLFWELLGAFRELAAAQSFHGCLVRTSPDPAQLGAAFSVGLVVACTILAPFLMCFCHYIH  300
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241  SLFWELLGAFRELAAAQSFHGCLVRTSPDPAQLGAAFSVGLVVACTILAPFLMCFCHYIH  300

Qy    301  CKTVRLSDVRPVRVNTIARVLRPFSEVYRPATTVLLMIYVFICCWGPCFVLLAAAROAQ  360
           ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    301  CKTVRLSDVRPVRVNTIARVLRPFSEVYRPATTVLLMIYVFICCWGPCFVLLAAAROAQ  360

Qy    361  TMQAFSLLSYAVWLTWANGAINPVIYAIRNPNISKLLGRNREGYRRNVDAFLPSQGP  420
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Db    361  TMQAFSLLSYAVWLTWANGAINPVIYAIRNPNISKLLGRNREGYRRNVDAFLPSQGP  420

Qy    421  GLQARSRSRLRNRYANRLGACNRRWSSSNPASGVAGDVAMRARKHPVVLFCRGGPPEPVTA  480
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Db    421  GLQARSRSRLRNRYANRLGACNRRWSSSNPASGVAGDVAMRARKHPVVLFCRGGPPEPVTA  480

Qy    481  VTKQPKSEAGDYSL  494
           ||||||||||||||
Db    481  VTKQPKSEAGDYSL  494
```

AAD24965
ID   AAD24965 standard; cDNA; 2177 BP.
XX
AC   AAD24965;
XX
DT   12-MAR-2002 (first entry)
XX
DE   Human G-protein coupled receptor-10 (GCREC-10) cDNA.
XX
KW   Human; G-protein coupled receptor-10; GCREC-10; therapy; cancer; stroke;
KW   cell proliferative disorder; neurological; epilepsy; Parkinson's disease;
KW   Alzheimer's disease; inflammation; thyroiditis; haemolytic anaemia; AIDS;
KW   Acquired Immune Deficiency Syndrome; dementia; nootropic; cholelithiasis;
KW   multiple sclerosis; atherosclerosis; angina pectoris; gastroenteritis;
KW   diabetes; ulcer; viral infection; immunosuppressive; ss.
XX
OS   Homo sapiens.
XX
FH   Key            Location/Qualifiers
FH
FT   CDS            1..1485
FT                  /tag= a
FT                  /product= "human GCREC-10 protein"
XX
PN   WO200198351-A2.
XX
PD   27-DEC-2001.
XX
PF   15-JUN-2001; 2001WO-US192275.
XX
PR   16-JUN-2000; 2000US-212483P.
PR   22-JUN-2000; 2000US-213354P.
PR   29-JUN-2000; 2000US-215299P.
PR   07-JUL-2000; 2000US-216599P.
PR   14-JUL-2000; 2000US-218936P.
PR   19-JUL-2000; 2000US-219154P.
PR   21-JUL-2000; 2000US-220141P.
XX
PA   (INCY-) INCYTE GENOMICS INC.
XX
PI   Lal P,  Baughn MR,  Hafalia AJFa,  Nguyen DB,  Gandhi AR,  Kallick Do;
PI   Griffin JA,  Yue H,  Khan FA,  Patterson C,  Lu DAV,  Tribouley CM;
PI   Lu Y,  Walia NK,  Graul R,  Yao MG,  Yang J,  Ramkumar J,  Au-Young J;
PI   Elliott VS,  Hernandez R,  Walsh KP,  Borowsky ML,  Thornton M,  He A;
XX
PT   Isolated human G-protein coupled receptor polypeptides and the use of
PT   these sequences in the diagnosis, treatment and prevention of diseases
PT   and in the assessment of exogenous compounds on the expression of the
PT   receptors -
XX
DR   WPI; 2002-075627/10.
DR   P-PSDB; AAE15640.
XX
PC   Claim 11; Page 137-138; 143pp; English.
XX
CC   The invention relates to isolated human G-protein coupled receptor
CC   (GCREC) polypeptides and their biologically active fragments. GCREC and
CC   protein is useful in treating a disease or condition associated with an
CC   increase or decrease in expression of functional GCREC. The GCREC's are
CC   useful in the diagnosis, treatment and Prevention of cell proliferative
CC   disorders (cancer, leukaemia, melanoma); neurological disorders (stroke,
CC   epilepsy Parkinson's disease, dementia, Alzheimer's disease); autoimmune
CC   inflammatory disorder (thyroiditis, haemolytic anaemia, AIDS, multiple
CC   sclerosis); cardiovascular disorder (atherosclerosis, angina pectoris),
CC   gastrointestinal disorder (ulcer, cholelithiasis, gastroenteritis),
CC   metabolic disorders (diabetes); viral infections (herpes virus) and in
CC   the assessment of the effects of exogenous compounds on the expression
CC   of the nucleic acid and amino acid sequences. The present sequence is
CC   human GCREC-10 cDNA.
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SQ   Sequence 2177 BP; 439 A; 692 C; 610 G; 436 T; 0 other;

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  Best Local Similarity   100.0%;  Pred. No. 4.7e-225;
  Matches 1511;  Conservative    0;  Mismatches    0;  Indels    0;  Gaps    0;

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Db          1 ATGGAGGAGCGCGAGCGCGCCCCCCCGCCCACGACGACGACGAGGCCGTTACTGGCGAGCCAGCCAGCAC 60